International Application No

P/EP2004/007323 A. CLASSIFICATION OF SUBJECT MATTER IPC 7 A01N43/08 A01N A01N43/10 A01N43/40 A01N43/54 A01N43/56 A01N43/58 A01N43/60 A01N43/76 A01N43/78 C07D213/61 C07D401/12 CO7D417/12 C07D405/12 CO7D411/12 C07D409/12 According to International Patent Classification (IPC) or to both national classification and IPC B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) AOIN CO7D Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal, PAJ, WPI Data, EMBASE, BIOSIS, CHEM ABS Data, BEILSTEIN Data C. DOCUMENTS CONSIDERED TO BE RELEVANT Calegory ° Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No X PATENT ABSTRACTS OF JAPAN 1-16 vol. 1996, no. 08 30 August 1996 (1996-08-30) -& JP 08 092223 A (MITSUI TOATSU CHEM INC), 9 April 1996 (1996-04-09) cited in the application last paragraph in column 6 abstract; claims; table 1 WO 01/53259 A (WALTER HARALD ; SYNGENTA 1-21 PARTICIPATIONS AG (CH); SCHNEIDER HERMANN (DE) 26 July 2001 (2001-07-26) cited in the application page 97 - page 100; claim 2; examples 1.41-1.56,1.100-1.117,1.161-1.178,1.233-1. 254; table 1 Further documents are listed in the continuation of box C. Patent family members are listed in annex. Special categories of cited documents: *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the A document defining the general state of the art which is not considered to be of particular relevance 'E' earlier document but published on or after the international invention document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone filing date 'L' document which may throw doubts on priority claim(s) or which is clied to establish the publication date of another citation or other special reason (as specified) document of particular relevance; the claimed linve ntion cannot be considered to involve an inventive step when the document is combined with one or more other such docu-*O* document referring to an oral disclosure, use, exhibition or other means ments, such combination being obvious to a person skilled in the art. document published prior to the international filing date but later than the priority date claimed *&* document member of the same patent family Date of the actual completion of the international search Date of malling of the International search report 12 November 2004 28. 02. 2005 Name and mailing address of the ISA Authorized officer European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2(40, Tx. 31 651 epo ni.

Form PCT/ISA/210 (second sheet) (January 2004)

Fax: (+31-70) 340-3016

Härtinger, S

International Application No FEP 2004 / 007323

| C.(Continu | tion) DOCUMENTS CONSIDERED TO BE RELEVANT | FG/EP2004/007323 | | |
|------------|---|-----------------------|--|--|
| Category ° | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. | | |
| Χ Υ | WO 95/09846 A (DU PONT; DENES LUCIAN RADU (US)) 13 April 1995 (1995-04-13) cited in the application | 1-16 | | |
| ٠ | page 30, line 23; example 48; table 1 page 17; line 22; claims 4,6-10 | 17-21 | | |
| Υ | WO 96/16954 A (AGREVO UK LTD; RIORDAN PETER DOMINIC (GB); WEST PETER JOHN (GB); BODD) 6 June 1996 (1996-06-06) claim 1; examples 22,23,26,27,33,35,42 | 1-21 | | |
| Y | EP 0 545 099 A (BASF AG) 9 June 1993 (1993-06-09) cited in the application page 4, line 1 - line 16; claim 1 page 2, line 1 - line 27 page 52 | 1-21 | | |
| <i>(</i> . | WO 93/11117 A (MONSANTO CO) 10 June 1993 (1993-06-10) | 1-16 | | |
| - | cited in the application claim 1 | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | • | | |
| · | | | | |
| | | | | |



| Box II Ot | servations wher | e certain claims | s were found uns | earchable (Co | ntinuation of | itom 2 of final at | |
|-------------------|--|---|---|---------------------------------------|--------------------------|-----------------------|------------|
| | | | | ····· | | | |
| This Interna | tional Search Report | t has not been esta | ablished in respect of | certain claims u | nder Article 17(2 | (a) for the followin | g reasons: |
| 1. χ Cla | ims Nos.: cause they relate to | subject matter not | required to be search | ned by this Autho | prity, namely: | | |
| A 1 me | though claim thod of trea | ms 13 and 14 atment of th | 4 have been one ne human or a eged anti-mic | rafted suc | ch that th | 1 m m lm | |
| bec | ims Nos.: ause they relate to p extent that no meani | parts of the International | tional Application tha Search can be carrie | it do not comply ted out, specificall | with the prescrib | ed requirements to | such · |
| • | | | | | | | |
| | | • | | | | | |
| 3. Clai | ims Nos.: ause they are depen | ndent claims and a | re not drafted in acco | | | | |
| | | ident danns and a | re not drafted in acco | ordance with the | second and third | sentences of Rule | 6.4(a). |
| Box III Ob | servations where | unity of invent | ion is lacking (Co | ntinuation of | item 3 of first | sheat) | |
| | | | | | | | |
| 1110 1110 | ollar searching won | юту товно типры | e inventions in this in | ternational applic | cation, as follows | s: . · | |
| Se | e additional | cheat | | • . | • | | • |
| | e addiciona; | 211667 | • | | | | |
| | | • | ٠ | | | | |
| | | | | | • | | * |
| 1. As a sear | II required additional chable daims. | l search fees were | timely paid by the ap | oplicant, this Inte | rnational Search | Report covers all | |
| - m | | | • | | | | |
| 2. As a of ar | Il searchable claims ny additional fee. | could be searched | i without effort justify | ing an additional | fee, this Authori | ty did not invite pay | ment |
| | - | | | | | | |
| 3. As o cove | nly some of the requ rs only those claims | ired additional sea for which fees wer | irch fees were timely re paid, specifically c | paid by the appliaims Nos.: | icant, this Interna | ational Search Rep | ort |
| | | | | | | | |
| | | | • | | | | |
| | | | | | | | |
| 4. X No re restri | equired additional se cted to the invention | arch fees were tim | ely paid by the appli the claims; it is cove | cant. Consequen | ntly, this Internations: | onal Search Report | is |
| | .5 (part) | | | | | | |
| | | | | • | | | 3 |
| | | | | | | | |
| Remark on Pr | rotest | | The addition | al search fees w | ere accompanie | d by the applicant's | orotest. |
| | | | | | | tional search fees. | |
| | | | | | | | - 1 |

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-15

A is a 5-membered heteroaromatic ring with 2 heteroatoms in 1,2 position

2. claims: 1-15

A is a 5-membered heteroaromatic ring with 2 heteroatoms in 1,3 position $\frac{1}{2}$

3. claims: 1-15

A is a 5-membered heteroaromatic ring with 1 heteroatom

4. claims: 1-15

A is a benzene ring

5. claims: 1-15

A is a 6-membered heteroaromatic ring with 1 heteroatom

6. claims: 1-15

A is a 6-membered heteroaromatic ring with 2 heteroatoms

7. claims: 1-15

A is a 6-membered partially unsaturated heterocyclic ring

8. claims: 1-15

A is a 5-membered partially unsaturated heterocyclic ring

9. claims: 16-21

intermediates of the general formula III

information on patent family members

International Application No PS/EP2004/007323

| | | | <u> </u> | i — — | | | 004/007323 | |
|----------|---|-------------|---------------------|--|---|---------------------------|--|---|
| cite | Patent document and in search report | | Publication date | | Patent family member(s) | • | Publication date | |
| JP | 08092223 | A | 09-04-1996 | NON | E | | | |
| . MO | . 0153259 | Α . | 26-07-2001 | AU AU BR CA CN CZ | 772635 3543301 0107738 2397008 1427823 20022496 | A A A1. T | 06-05-2004 31-07-2001 22-10-2002 26-07-2001 02-07-2003 16-10-2002 | |
| · · | | , | | WO EP HU JP PL | 0153259 1252140 0203960 2003520269 357312 | A1 A1 A2 T A1 | 26-07-2001 30-10-2002 28-03-2003 02-07-2003 26-07-2004 | • |
| | | | | US US ZA | 2004049035 2004106521 200205641 | Al | 11-03-2004 03-06-2004 03-11-2003 | |
| ·WO | 9509846 | A | 13-04-1995 | AU CA | 7834494 2173326 | | 01-05-1995 13-04-1995 | |
| | | | | EP WO US | 0722441 9509846 5631206 | A1 A1 | 24-07-1996 13-04-1995 20-05-1997 | |
| WO. | 9616954 | A | 06-06-1996 | AU WO EP ZA | 4302896 9616954 0794950 9510223 | A1 A1 | 19-06-1996 06-06-1996 17-09-1997 29-07-1996 | |
| EP | 0545099 | A | 09-06-1993 | AT AU AU CA | 149487 656243 2855492 2081935 | B2 A A1 | 15-03-1997 27-01-1995 27-05-1993 23-05-1993 | |
| | | | | CZ CZ DE DK EP | 9203448 289478 59208113 545099 0545099 | B6 D1 T3 | 13-10-1993 16-01-2002 10-04-1997 24-03-1997 | . |
| | | | | ES GR HU IL JP | 2098421 3023336 62861 103614 3202079 | T3 T3 A2 A B2 | 09-06-1993 01-05-1997 29-08-1997 28-06-1993 24-09-1998 27-08-2001 | |
| | | | | JP JP JP KR NZ | 5221994 2001253802 2001316210 267518 245194 | A A B1 A | 31-08-1993 18-09-2001 13-11-2001 16-10-2000 27-02-1996 | |
| | | · | , | PL SK US US US US ZA | 296677 344892 5480897 5556988 5589493 5330995 9208977 | A3 . A A A A | 18-10-1993 08-03-1995 02-01-1996 17-09-1996 31-12-1996 19-07-1994 19-05-1994 | |
| | 9311117 | A | 10-06-1993 | US AR AT | 5223526 248397 149490 | A1 | 29-06-1993 18-08-1995 15-03-1997 | |

Information on patent family members

International Application No
PC/EP2004/007323

| | | | 1047 21 2004/ 00/323 | | |
|--|-----------------------|------|----------------------------|---------------------|--|
| Patent document cited in search report | Publication . date | | Patent family member(s) | Publication date | |
| WO 9311117. A | | AU | 657598 B2 | 16-03-1995 | |
| | • | AU | 3240793 A | 28-06-1993 | |
| | | BR | 9206869 A | 28-11-1995 | |
| | | CA | 2123122 A1 | 10-06-1993 | |
| | | CZ | 9401260 A3 | 15-02-1995 | |
| | • | DE | . 69217997 D1 | 10-04-1997 | |
| | | . DE | 69217997 T2 | 04-09-1997 | |
| | <i>:</i> | EP | 0623113 A1 | 09-11-1994 | |
| | | , HU | 67795 A2 | 28-04-1995 | |
| • | | JP | 7501549 T | 16-02-1995 | |
| | | LT | 234 A | 15-06-1994 | |
| | | MD | 940085 A | 30-06-1995 | |
| • | • | MX | 9207038 A1 | 01-06-1993 | |
| • . | | NZ | 246269 A | 26-07-1995 | |
| • | | SI | 9200352 A | 30-06-1993 | |
| | | SK . | 67894 A3 | 08-02-1995 | |
| · | | TR | 26592 A | 15-03-1995 | |
| • | • | MO | 9311117 A1 | 10-06-1993 | |
| | • | ZA | 9209441 A | 25-08-1993 | |
| · | | ZW | 18792 A1 | 12-05-1993 | |
| | | CN. | 1078234 A | 10-11-1993 | |